CLAIMS

1. An ammonium glyphosate synthesis process that is characterized in that an organic solvent, glyphosate and ammonia gas are added to the reactor at 10~50°C and react for 2 – 8 hours, whereupon the reaction liquid is cooled down and the precipitated crystals are removed therefrom, these crystals are dried thereby yielding the product ammonium glyphosate.

2. An ammonium glyphosate synthesis process under Claim 1 that is characterized in that the mother liquid of the removed crystals is recycled as the solvent to continue the next batch of said reaction.

3. An ammonium glyphosate synthesis process under Claim 2 that is characterized in that the set of mother liquid recyclings constitutes 6 ~ 15 batches, and the mother liquid of the final batch undergoes distillation treatment to remove ammonium glyphosate from it.

4. An ammonium glyphosate synthesis process under Claim 1, 2 or 3 that is characterized in that said solvent is alcohol, ether, aromatic hydrocarbon, alkane or an organic solvent – water mixture that includes at least 25% (W/W) water.

5. An ammonium glyphosate synthesis process under Claim 1, 2 or 3 that is characterized in that said solvent is methanol, ethanol, mineral ether, benzene, xylene or cyclohexane.

6. An ammonium glyphosate synthesis process under Claim 4 that is characterized in that the reaction temperature is 20 ~ 40°C, while the reaction time is 2.5 ~ 4 hours.

7. An ammonium glyphosate synthesis process under Claim 6 that is characterized in that, following the reaction, the reaction liquid is cooled down to 15 – 20°C, and crystals are removed therefrom.